

REMARKS

This Amendment is fully responsive to the final Office Action dated January 21, 2009, issued in connection with the above-identified application. Claims 1-11 are pending in the present application. With this Amendment, claims 1, 4, 6 and 8 have been amended. No new matter has been introduced by the amendments made to the claims. Favorable reconsideration is respectfully requested.

In the Office Action, claims 1 and 8 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Specifically, the Examiner alleges that the limitation “reconstruct each segmented data accumulated in the buffer into the content before the segmentation of the data,” is ambiguous. The Applicants have amended independent claims 1 and 8 to clarify the scope of the claims.

Specifically, claim 1 have been amended to clarify that a plurality of communication units are “configured to receive pieces of segmented data of a content transmitted from a content transmission device over a communication path”; and a content reconstruction unit has a buffer “in which the pieces of segmented data received by a corresponding one of said plurality of communication units is temporarily accumulated, and configured to reconstruct the pieces of segmented data accumulated in the buffer into the content.” Claim 8 has been amended similar to that of claim 1. As amended, claims 1 and 8 are now clearly defined. Accordingly, withdrawal of the rejection to claims 1 and 8 under 35 U.S.C. 112, second paragraph, is respectfully requested.

In the Office Action, claims 1-11 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Naruse (U.S. Publication No. 2002/0183026) in view of Roman (U.S. Publication No. 2004/0154043, hereafter “Roman”), Delavega (U.S. Publication No. 2005/0034158 hereafter “Delavega”), and further in view of Koivisto (U.S. Publication No. 2007/0150930 hereafter “Koivisto”).

The Applicants have amended independent claims 1 and 8 to help further distinguish the present invention from the cited prior art. As amended, claim 1 recites the following features:

“[a] content reproduction device that performs streaming reproduction of a content, the

device comprising:

a plurality of communication units, each being configured to receive pieces of segmented data of a content transmitted from a content transmission device over a communication path; a content reconstruction unit having a buffer in which the piece of segmented data received by a corresponding one of said plurality of communication units is temporarily accumulated, and configured to reconstruct the piece of segmented data accumulated in the buffer into the content;

a reproduction unit configured to extract the content from the buffer at a predetermined bit rate and to reproduce the content at the predetermined bit rate, the content, having been reconstructed by said content reconstruction unit; and

a communication control unit configured to:

calculate, for every predetermined time, target transmission speeds to be assigned for content reception by causing the target transmission speeds to associate respectively with said plurality of communication units, based on free space in the buffer and the bit rate; and

transmit a first request signal indicating the calculated target transmission speeds corresponding to said plurality of communication units to the content transmission device via one of said plurality of communication units.” (Emphasis added).

The features emphasized above in independent claim 1 are similarly recited in independent claim 8 (as amended). Additionally, the features emphasized above in independent claims 1 and 8 (as amended) are also similarly recited in independent claims 7 and 9 (as previously presented).

Specifically, independent claims 7 and 9 both recite that a plurality of communication units “receive part of the segmented data of the content obtained by segmenting data of a single content such that a content reconstruction unit, having a buffer in which each segmented data of the content received by the plurality of communication units is temporarily accumulated, reconstructs each segmented data into the content.”

The present invention (as recited in independent claims 1 and 7-9) is distinguishable over the cited prior art in that each of the communication units receives some pieces of the

segmented data into which a piece of content is segmented, and a content reconstruction unit reconstructs the pieces of segmented data received by each of the communication units into the original one piece of content. Not such features of the present invention (as noted above) are believed to be disclosed or suggested by the cited prior art. Additionally, the features noted above in independent claims 1 and 7-9 are fully supported by the Applicants' disclosure (see e.g., Fig. 3 and pgs. 13-15).

In the Office Action, the Examiner relies on the combination of Naruse, Roman, Delavega and Koivisto for disclosing or suggesting all the features recited in independent claims 1 and 7-9. However, the Examiner relies primarily on the newly cited reference Koivisto for disclosing or suggesting all the features of the present invention (as similarly recited in independent claims 1 and 7-9) discussed above.

In the Office Action, the Examiner relies on ¶[0080] and ¶[0105]] of Koivisto. However, Koivisto (i.e., ¶[0080] and ¶[0105])) discloses a storage 19 and a drive content 21 including a content file 95 that are stored in the storage 19. As described in Koivisto, the content file 95 comprises first and second parts 96, 97, a beginning 98, an intermediate point 99 and an end 100. Thus, Koivisto discloses a storage 19 that receives multiple parts of the content from content sources, which are stored in a storage unit (i.e., storage 19) as a single file. Koivisto fails, however, to disclose or suggest that originally one piece of content is segmented into the multiple parts of the content received from the content sources.

Therefore, combining the storage 19 disclosed in Koivisto with teachings of Naruse would, at best, result in an apparatus for transmitting and receiving an independent piece of content via an associated communication unit at a transmission speed depending on the kind of content.

In other words, the cited prior art fails to disclose or suggest communication units that each receive some pieces of the segmented data into which a piece of content is segmented, and a content reconstruction unit that reconstructs the pieces of segmented data (i.e., that each of the communication units receives) into the original one piece of content, as similarly recited in independent claims 1 and 7-9.

Based on the above discussion, no combination of Naruse, Roman, Delavega and Koivisto would result in, or otherwise render obvious, independent claims 1 and 7-9. Additionally, no combination of Naruse, Roman, Delavega and Koivisto would result in, or otherwise render obvious, claims 2-6, 10 and 11 at least by virtue of their respective dependencies from independent claims 1 and 7-9.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the present application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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